

REMARKS

Examiner Muromoto is thanked for the courtesies extended during the telephone interview of May 20, 2004. Applicants' separate record of the substance of that interview is incorporated into the following discussion.

Claims 3 and 6 are currently pending.

Applicants' Response to the Rejections under 35 USC 103

Claims 3 and 6 stand rejected under 35 USC 103(a) as being unpatentable over *Miller et al.* in view of *Calamito*. Specifically, the Office Action maintains that *Miller et al.* demonstrates a woven fabric with a slot, 52 which may be cut along a dotted line 72. The two ends are then raised as flaps 74 and 76. The flaps may be raised to 90° and stiffened. *Miller et al.* teaches that when this is done "the flaps are particularly useful in preventing flexure of the fabric along the length thereof" (*see* col. 7, line 58 to Col. 8; and Figures 3 and 4).

The Office Action further states that it would have been obvious to one skilled in the art to combine *Miller et al.*'s teachings with that of *Calamito*, which teaches multiple slots, and that the end result would be a formation of a solid I-beam structure.

Applicants respectfully traverse. Applicants submit that there are elements necessary to form an I-beam structure that are not present in either reference and the references appear to teach away from these elements. The law is well established in regard to §103 rejections that the mere fact that references can be combined does not render the invention obvious unless the references also suggest the desirability of the

combination. In addition, when evaluating a claim for determining obviousness (§103), all limitations of the claims must be evaluated. The law, in regard to evaluating product by process claims is also established. Specifically, according to M.P.E.P 2113:

The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially . . . where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979) (holding “inter-bonded by interfusion” to limit structure of the claimed composite and noting that terms such as “welded,” “intermixed,” “ground in place,” “press fitted,” and “etched” are capable of construction as structural limitations.)

First, Applicants respectfully submit that both references lack the necessary suggestion or motivation to combine. Specifically, the *Calamito et al.* reference teaches away from slots which are exposed for cutting. Rather, the intent is for the slots to be filled. Oppositely, *Miller et al.* does teach the cutting of a slot, but does not teach or suggest cutting both ends along the slot or multiple slots.

Applicants additionally respectfully submit that all the limitations of the current claims would not be present in the combination of the references. As noted above, *Miller et al.* only teaches cutting along one surface 72 of the slot 52. *Miller et al.* does not teach splitting the fabric in two pieces as the present invention requires. Further, *Miller et al.* teaches away from dividing the fabric as the resultant flaps 74 and 76 are taught as strengthening the overall fabric.

Thus, the steps missing from the cited references but required by Applicants’ claims are:

- 1) forming “at least two divisibly woven sections” (slots) in the fabric;

- 2) cutting the entire fabric through at both slots “cut open along a center line”;
and
- 2) forming the four resultant flaps at a 90° angle from the center fabric “to
manufacture an I-beam.”

Miller et al. teaches away from cutting through both sides of the slot as evidenced in Figures 3 and 4. Figures 3 and 4 illustrate the fabric which is cut 72 is significantly thinner than the fabric which remains 62. Hence, even if the *Miller et al.* structure was capable of being formed into an I-beam, the resultant product would be different from Applicants' claimed invention. The presently claimed structure, per the manufacturing process steps recited in the claim, impart distinctive structural characteristics from those described in *Miller et al.* The evidence of this is clear as *Miller et al.* at no point describes the bending of flaps to actually form into an I-beam structure. In fact, *Miller et al.* at no point uses the term “I-beam” to describe its invention or possible use thereof.

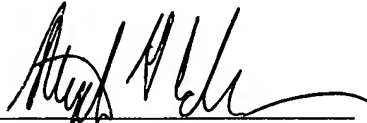
Thus, Applicants respectfully submit that even if one skilled in the art were to combine the references, it would not result in the claimed invention because there is no teaching or suggestion to cut through the entire fabric at the point of the slot at two separate slots and place the four flaps at 90° angles. Further, forming an I-beam in this manner results in distinct structural differences from any product which may be formed based on the teachings of *Miller et al.* Wherefore, based on the above remarks, Applicants respectfully request favorable reconsideration and the withdrawal of the rejection of claims 3 and 6.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 50-2866.

Respectfully submitted,

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By:

A handwritten signature in black ink, appearing to read 'Stephen G. Adrian', written over a horizontal line.

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